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EXAMINER

BETIT, JACOB F

ART UNIT PAPER NUMBER

2175

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,753

Applicant(s)

LUCOVSKY ET AL.

Examiner

Jacob F. Betit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4 and 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Specification

1. The arrangement of the disclosed application does not conform with 37 CFR 1.77(b).

Section headings are underlined and boldfaced throughout the disclosed specification. Section headings should not be underlined and/or **boldfaced**. Appropriate corrections are required according to the guidelines provided below:

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

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(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 12-16, 36-41, and 43-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellis et al. (U.S. patent No. 6,195,662 B1).

As to claim 1, Ellis et al. teaches in a computer system that manages two or more different types of data structures, each type of data structure being organized in accordance with a set of rules and corresponding to an identity, a method for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the method comprising:

an act of recognizing a common set of command methods that may be used to operate on data structures of a number of different data types corresponding to a plurality of identities (see column 6, lines 1-37);

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an act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type corresponding to a particular identity, the command method being one of the common set of command methods (see column 7, lines 19-22);

an act of accessing a set of rules associated with the particular data type, the set of rules defining how data structures of the particular data type may be organized, and what portions of data structure of the particular data type may have what commands executed thereon (see column 4, line 66 through column 5, line 27);

an act of finding the portion of the data structure that is to be operated upon by interpreting the request in light of the set of rules (see column 6, line 66 through column 7, line 12);

an act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules (see column 6, lines 13-25, where if the data bags are not the same type the command method cannot be implemented); and

an act of executing the command method on the found portion of the data structure (see column 7, lines 13-22).

As to claims 2 and 40, Ellis et al. teaches wherein the act of finding the portion of the data structure that is to be operated upon comprises:

an act of accessing an identification of a location of the portion of the data structure (see column 6, line 66 through column 7, line 1);

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an act of navigating to the location of the portion of the data structure using the identification of the location of the portion of the data structure (see column 6, line 66 through column 7, line 12);

an act of accessing an identification of a data type contained in the portion of the data structure (see column 7, lines 1-6); and

an act of determining the portion of the data structure that is to be operated upon using the identification of the location of the portion of the data structure, as well as the identification of the data contained in the portion of the data structure (see column 7, lines 7-18).

As to claim 3, Ellis et al. teaches wherein a plurality of portions of the data structure may be identified using the identification of the location of the portion of the data structure, as well as the identification of the data type contained in the portion of the data structure (see column 6, line 66 through column 7, line 6), the act of determining the portion of the data structure further comprising:

an act of accessing a unique identifier associated with the portion of the data structure that is to be operated upon, the unique identifier uniquely distinguishing the portion of the data structure that is to be operated upon from amongst the plurality of portions of the data structure that have the same location and data type (see column 5, lines 1-19).

As to claims 4 and 41, Ellis et al. teaches wherein the computer-executable instructions for determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises:

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computer-executable instructions for determining that the portion of the data structure is compatible with performing the command method (see column 6, lines 13-25, where if the data bags are not the same type the command method cannot be implemented).

As to claim 12, Ellis et al. teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following:

an act of accessing a request to insert the at least the portion of the data structure into the data structure (see column 6, lines 13-25).

As to claim 13, Ellis et al. teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following:

an act of accessing a request to insert information into the portion of the data structure (see column 6, lines 13-25).

As to claim 14, Ellis et al. teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following:

an act of accessing a request to delete the portion of the data structure (see column 6, lines 23-25, where “delete” is read on “overwritten”).

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As to claim 15, Ellis et al. teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following:

an act of accessing a request to replace the portion of the data structure with a new portion of a data structure (see column 6, lines 23-25).

As to claim 16, Ellis et al. teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a query regarding the portion of the data structure (see column 6, lines 3-7).

As to claim 36, Ellis et al. teaches in a computer system that manages two or more different types of data structures, each type of data structure being organized in accordance with a set of rules and corresponding to an identity, a method for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the method comprising the following:

an act of recognizing a common set of command methods that may be used to operate on data structures of a number of different data types corresponding to a plurality of identities (see column 6, lines 1-37);

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an act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type corresponding to a particular identity, the command method being one of the common set of command methods (see column 7, lines 19-22); and

a step for executing the command method on at least a portion of the data structure in accordance with a set of rules associated with the particular data type (see column 7, lines 13-22).

As to claim 37, Ellis et al. teaches wherein the step for executing the command method on at least a portion of the data structure comprises:

an act of accessing a set of rules associated with the particular data type, the set of rules defining how data structures of the particular data type may be organized, and what portions of data structure of the particular data type may have what commands executed thereon (see column 4, line 66 through column 5, line 27);

an act of finding the portion of the data structure that is to be operated upon by interpreting the request in light of the set of rules (see column 6, line 66 through column 7, line 12);

an act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules (see column 6, lines 13-25, where if the data bags are not the same type the command method cannot be implemented); and

an act of executing the command method on the found portion of the data structure (see column 7, lines 13-22).

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As to claim 38, Ellis et al. teaches a computer program product for use in a computer system that manages two or more different types of data structures, each type of data structure being organized in accordance with a set of rules, the computer program product for executing a method for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the computer program product comprises one of more physical storage media having stored thereon:

computer-executable instructions for recognizing a common set of command methods that may be used to operate on data structures of a number of different data types corresponding to a plurality of identities (see column 6, lines 1-37);

computer-executable instructions for accessing a request to execute a command method on at least a portion of a data structure of a particular data type corresponding to a particular identity, the command method being one of the common set of command methods (see column 7, lines 19-22);

computer-executable instructions for accessing a set of rules associated with the particular data type, the set of rules defining how data structures of the particular data type may be organized, and what portions of data structure of the particular data type may have what commands executed thereon (see column 4, line 66 through column 5, line 27);

computer-executable instructions for finding the portion of the data structure that is to be operated upon by interpreting the request in light of the set of rules (see column 6, line 66 through column 7, line 12);

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computer-executable instructions for determining that the command method may be implemented on the portion of the data structure by consulting the set of rules (see column 6, lines 13-25, where if the data bags are not the same type the command method cannot be implemented); and

computer-executable instructions for executing the command method on the found portion of the data structure (see column 7, lines 13-22).

As to claim 39, Ellis et al. teaches wherein the one or more computer readable media are physical storage media (see figure 1, reference numbers 17 and 24).

As to claim 43, Ellis et al. teaches a system for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the system comprising:

a data structure of a particular data type, the data structure organized in accordance with a set of rules and associated with an identity (see column 5, lines 1-19);

a navigation module configured to recognize a common set of command methods that may be used to operate on data structures of a number of different data types including the data structure of the particular data type, the navigation module communicatively coupled to the data structure so as to be capable of navigation through the data structure using the set of rules and performing any of the common set of command methods on the data structure (see column 4, lines 59-65); and

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a navigation assistance module communicatively coupled to the navigation module, the navigation assistance module containing the set of rules that describe the organization of the data structure (see column 5, lines 6-16).

As to claim 44, Ellis et al. teaches wherein the data structure is a first data structure, the particular data type is a first data type, and the set of rules is a first set of rules, wherein the system further comprises:

a second data structure of a second data type, the second data structure being organized in accordance with a second set of rules, wherein the navigation assistance module also contains the second set of rules, wherein the navigation module is capable of navigation through the second data structure using the second set of rules and performing any of the common set of command methods on the second data structure (see column 5, lines 1-19).

As to claim 45, Ellis et al. teaches a system for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the system comprising:

a data structure of a particular data type, the data structure organized in accordance with a set of rules and associated with an identity (see column 5, lines 1-19); and

means for executing a command method on at least a portion of the data structure in accordance with a set of rules associated with the particular data type (see column 6, lines 1-37).

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As to claim 46, Ellis et al. teaches in a computer system that manages two or more different types of data structures, each type of data structure being organized in accordance with a set of rules and corresponding to an identity, a method for directly operating on data structures in a generic manner regardless of the type of data structure being operated upon and without requiring dedicated executable code for manipulating data structures of the particular data type, the method comprising:

an act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type corresponding to a particular identity (see column 7, lines 19-22);

an act of accessing a set of rules associated with the particular data type, the set of rules defining how data structures of the particular data type may be organized (see column 4, line 66 through column 5, line 27); and

an act of executing the command method on a portion of the data structure determined by interpreting the request in light of the set of rules (see column 7, lines 13-22).

As to claim 47, Ellis et al. teaches wherein the act of executing the command method on a portion of the data structure determined by interpreting the request in light of the set of rules comprises:

an act of accessing an identification of a location of the portion of the data structure (see column 6, line 66 through column 7, line 1);

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an act of navigating to the location of the portion of the data structure using the identification of the location of the portion of the data structure (see column 6, line 66 through column 7, line 12);

an act of accessing an identification of a data type contained in the portion of the data structure (see column 7, lines 1-6); and

an act of determining the portion of the data structure that is to be operated upon using the identification of the location of the portion of the data structure, as well as the identification of the data contained in the portion of the data structure (see column 7, lines 7-18).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S. patent No. 6,195,662 B1) in view of Van Huben et al. (U.S. patent No. 6,654,747 B1).

As to claims 5 and 42 Ellis et al. does not teach further comprising: an act of determining that a request that issued the command method is authorized to execute the command method on the portion of the data structure that is to be operated upon.

Van Huben et al. teaches a common process interface to standardize communication with a plurality of different storage types (see abstract), in which he teaches further comprising: an act of determining that a request that issued the command method is authorized to execute the command method on the portion of the data structure that is to be operated upon (see column 18, lines 53-67).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include further comprising: an act of determining that a request that issued the command method is authorized to execute the command method on the portion of the data structure that is to be operated upon.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Van Huben et al. because further comprising: an act of determining that a request that issued the command method is authorized to execute the command method on the portion of the data structure that is to be operated upon would protect the structure from being operated on by unauthorized users.

7. Claims 6-11 and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S. patent No. 6,195,662 B1) in view of Inohara et al. (U.S. patent No. 6,377,952 B1).

As to claim 6, Ellis et al. does not teach wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following:

an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure.

Inohara et al. teaches a system for file conversion into different formants so that they can be opened by many different applications (see abstract), in which he teaches wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure (see column 10, lines 14-20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Inohara et al. because wherein the act of accessing a request to implement a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure would make sure the file reflects the latest updates (see Inohara et al., column 10, lines 14-20).

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As to claim 7, Ellis et al. as modified, teaches wherein the act of executing the command method on the found portion of the data structure comprises:

an act of comparing a version identifier of the portion of the data structure with a version identifier of the copy of the portion of the data structure (see Inohara et al., column 10, lines 14-20).

As to claim 8, Ellis et al. as modified, teaches wherein the act of executing the command method on the found portion of the data structure further comprises:

an act of determining that the version identifier of the portion of the data structure is the same as the version identifier of the copy of the portion of the data structure (see Inohara et al., column 10, lines 56-64).

As to claim 9, Ellis et al. as modified, teaches wherein the act of executing the command method on the found portion of the data structure further comprises:

an act of reporting that the portion of the data structure is synchronized with the copy of the portion of the data structure (see Inohara et al., column 10, lines 56-64).

As to claim 10, Ellis et al. as modified, teaches wherein the act of executing the command method on the found portion of the data structure further comprises:

an act of determining that the version identifier of the portion of the data structure is different than the version identifier of the copy of the portion of the data structure (see Inohara et al., column 10, lines 21-55).

As to claim 11, Ellis et al. as modified, teaches wherein the act of executing the command method on the found portion of the data structure further comprises:

an act of responding to the request with a response that includes instructions that are configured to bring the copy of the portion of the data structure in synchronization with the portion of the data structure (see Inohara et al., column 10, lines 21-55).

As to claim 48, Ellis et al. does not teach wherein the act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure.

Inohara et al. teaches wherein the act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure (see column 10, lines 14-20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data

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structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Inohara et al. because wherein the act of accessing a request to execute a command method on at least a portion of a data structure of a particular data type comprises the following: an act of accessing a request to query the portion of the data structure to determine if the portion of a data structure is synchronized with a copy of the portion of the data structure would make sure the file reflects the latest updates (see Inohara et al., column 10, lines 14-20).

As to claim 49, Ellis et al. as modified, teaches wherein the act of executing the command method on a portion of the data structure comprises:

an act of comparing a version identifier of the portion of the data structure with a version identifier of the copy of the portion of the data structure (see Inohara et al., column 10, lines 14-20).

8. Claims 17-35, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S. patent No. 6,195,662 B1) in view of Lal (U.S. patent No. 6,684,204 B1).

As to claim 17, Ellis et al. does not teach wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents.

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Lal teaches a method of searching on a network with various XML documents of different types using the tags from the documents to produce a more precise search (see abstract), in which he teaches wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents (see column 4, lines 13-45).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents would allow the searcher to choose what fields should be searched by selecting the appropriate tags (see Lal, column 6, lines 1-13).

As to claim 18, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define calendar information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with calendar information).

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As to claim 19, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define in-box information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with in-box information).

As to claim 20, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define document information (see Lal, column 4, lines 13-21).

As to claim 21, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define presence information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with presence information).

As to claim 22, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define personal address information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with personal address information).

As to claim 23, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define contacts information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with contacts information).

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As to claim 24, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define application setting information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with application setting information).

As to claim 25, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define physical device information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with physical device information).

As to claim 26, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define favorite Web site information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with favorite Web site information).

As to claim 27, Ellis et al. as modified, teaches wherein the class comprises a class of XML documents that define payment information (see Lal, column 4, lines 13-21, where it would be obvious to one skilled in the art to make an XML document with payment information).

As to claim 28, Ellis et al. as modified, teaches wherein the class comprises a class of XML document that define notification information (see Lal, column 4, lines 13-21, where it

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would be obvious to one skilled in the art to make an XML document with notification information).

As to claim 29, Ellis et al. does not teach wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following:

an act of determining that the portion of the data structure is a root element of the data structure.

Lal teaches wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a root element of the data structure (see column 4, lines 39-46).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a root element of the data structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a root element of the data structure would allow the searcher to

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specify the right tag when tag names are used more than once in a structure (see Lal, column 4, lines 13-21).

As to claim 30, Ellis et al. does not teach wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following:

an act of determining that the portion of the data structure is second-level nested element of the data structure.

Lal teaches wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is second-level nested element of the data structure (see column 4, lines 39-46).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is second-level nested element of the data structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is second-level nested element of the data structure would allow the

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searcher to specify the right tag when tag names are used more than once in a structure (see Lal, column 4, lines 39-46).

As to claim 31, Ellis et al. does not teach wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following:

an act of determining that the portion of the data structure is a selectable attribute associated with a second-level nested element of the data structure, wherein only some of the attributes associated with the portion of the data structure are selectable.

Lal teaches wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a selectable attribute associated with a second-level nested element of the data structure, wherein only some of the attributes associated with the portion of the data structure are selectable (see column 4, lines 39-46).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a selectable attribute associated with a second-level nested element of the data structure, wherein only some of the attributes associated with the portion of the data structure are selectable.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the act of determining that the command method may be implemented on the portion of the data structure by consulting the set of rules comprises the following: an act of determining that the portion of the data structure is a selectable attribute associated with a second-level nested element of the data structure, wherein only some of the attributes associated with the portion of the data structure are selectable would allow the searcher to specify the right tag when tag names are used more than once in a structure (see Lal, column 4, lines 39-46).

As to claim 32, Ellis et al. does not teach wherein the particular identity is an individual.

Lal teaches wherein the particular identity is an individual (see column 4, lines 13-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the particular identity is an individual.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the particular identity is an individual would set up standard formats for documents (see Lal, column 4, lines 13-29).

As to claim 33, Ellis et al. does not teach wherein the particular identity is a group of individuals.

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Lal teaches wherein the particular identity is a group of individuals (see column 4, lines 13-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the particular identity is a group of individuals.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the particular identity is a group of individuals would set up standard formats for documents (see Lal, column 4, lines 13-29).

As to claim 34, Ellis et al. does not teach wherein the particular identity is an organization.

Lal teaches wherein the particular identity is an organization (see column 4, lines 13-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the particular identity is an organization.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the particular identity is an organization would set up standard formats for documents (see Lal, column 4, lines 13-29).

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As to claim 35, Ellis et al. does not teach wherein the data structure comprises a hierarchical data structure.

Lal teaches wherein the data structure comprises a hierarchical data structure (see column 4, lines 39-46).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the data structure comprises a hierarchical data structure.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because wherein the data structure comprises a hierarchical data structure would allow the searcher to specify the right tag when tag names are used more than once in a structure (see Lal, column 4, lines 39-46).

As to claim 50, Ellis et al. does not teach wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents.

Lal teaches wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents (see column 4, lines 13-45).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. to include wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents.

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ellis et al. by the teachings of Lal because to include wherein the set of rules associated with the particular data type comprises a schema that defines a class of extensible Markup Language documents would allow the searcher to choose what fields should be searched by selecting the appropriate tags (see Lal, column 6, lines 1-13).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Betit whose telephone number is (703) 305-3735. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (703) 305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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